PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or a	agent's file referenc	FOR FURTHI	ER ACTION	See Form PCT/IPEA/416					
		International fili	ng date (day/month/year)	Priority date (day/month/year)					
International application No. PCT/EP2004/007173 International file 01.07.2				10.07.2003					
				10.07.2003					
International Patent Classification (IPC) or national classification and IPC C08G77/395, C07F9/40									
C08G11/393, C0129/40									
Applicant									
CONSOR	TIUM FÜR	ELEKTROCHEMISO	CHE INDUSTRIE	GMBH					
 This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 									
2. This l	REPORT consists of	of a total of 5	sheets, includi	ng this cover sheet.					
3. This	report is also accon	npanied by ANNEXES, compri	sing:						
a. [(sent to the d	upplicant and to the Internation	al Bureau) a total of	sheets, as follows:					
	sheets	of the description, claims and/o	r drawings which have been	amended and are the basis for this report and/or					
	sheets Instruc	-	ized by this Authority (see R	tule 70.16 and Section 607 of the Administrative					
sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.									
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D. L	(Sent to the t	nternational Bureau only) a tot	at of (indicate type and numi	er of electronic carrier(s))					
, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).									
4. This	-	cations relating to the followin		 					
\boxtimes	Box No. I	Basis of the report							
	Box No. II	Priority							
Ħ		-		-time step and industrial analisability					
H	Box No. III	_	with regard to noveity, inves	ntive step and industrial applicability					
	Box No. IV	Lack of unity of invention	2 1 25/20 12h d 4	V					
	Box No. V	Reasoned statement under Ar- citations and explanations sup		elty, inventive step or industrial applicability;					
	Box No. VI	Certain documents cited							
Box No. VII Certain defects in the international application									
Box No. VIII Certain observations on the international application									
Date of submis	Date of submission of the demand Date of completion of this report								
Name and mail	ling address of the	IPEA/EP	Authorized officer						
Faccimile No.			Telephone No						

Translation

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International application No.
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Box	No. I		Basis of the report		
1.			o the language, this report is based on the internation er this item.	al application in the language in which it	was filed, unless otherwise
		which i	port is based on translations from the original languages the language of a translation furnished for the purponternational search (Rule 12.3 and 23.1(b))		· · · · · · · · · · · · · · · · · · ·
			ublication of the international application (Rule 12.4)		
		☐ in	nternational preliminary examination (Rule 55.2 and/o	or 55.3)	
2.	recei	iving Off. report): the inte	to the elements of the international application, this is the control of the international application and invitation under Article 14 are contained application as originally filed/furnished		
			cription:		
		pages			
		pages*			
		pages*		received by this Authority on	
		the clai	ms:		
		nos.	1-10		as originally filed/furnished
1		nos.*		as amended (together with a	ny statement) under Article 19
		nos.*		received by this Authority on	
		nos.*		received by this Authority on	
	Ш	the drav	wings:		
		sheets			as originally filed/furnished
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		sheets*		received by this Authority on	
		a seque	ence listing and/or any related table(s) - see Suppleme	ental Box Relating to Sequence Listing.	
3.		The am	nendments have resulted in the cancellation of:		
			he description, pages		
			he claims, nos.		
		$\overline{}$	he drawings, sheets/figs		
			- 		
		\Box	ny table(s) related to sequence listing (specify):		•
4.		This re	port has been established as if (some of) the amendi		
		\Box	he description, pages	• •	(Ruic 70.2(c)).
		$\overline{}$			
			he drawings, sheets/figs		
			he sequence listing (specify):		
└ *	If ite	em 4 appi	lies, some or all of those sheets m <u>ay be</u> marked "supe	rseaed	

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		nt under Article 35(2) with regard to novelty, inventive step or industrial applicability; anations supporting such statement		
1.	Statement			
	Novelty (N)	Claims	1-10	YES
		Claims		NO
	Inventive step (IS)	Claims	1-10	YES
		Claims		NO
	Industrial applicability (IA)	Claims	1-10	YES
		Claims		NO

- 2. Citations and explanations (Rule 70.7)
 - D1 US 2843615 A of 15.07.1958
 - 1. The present application concerns a method of preparing phosphonic ester-modified organosiloxanes with phosphonomethylsilyl groups see formula (I) of the current main claim by aqueous hydrolysis of phosphonmethylsilanes of formula (III), either alone or in the presence of silanes of formula (II) see claims 1-9, and the use of silanes as antistatic additive see claim 10.
 - 2. The subjects of claims 1-10 are novel within the meaning of PCT Article 33(2). None of the search report citations pertains to a method of preparing phosphonic ester-modified organosiloxanes with phosphonomethylsilyl groups see formula (I) of the current main claim by aqueous hydrolysis of phosphonmethylsilanes of formula (III), either alone or in the presence of silanes of formula (II) see claims 1-9, and the use of silanes as antistatic additive see claim 10.

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

D1, see example 14, pertains to a method of preparing phosphonic ester-modified organosiloxanes with phosphonomethylsilyl groups by aqueous hydrolysis of phosphonomethylsilanes in the presence of dimethyl diethoxysilane, i.e. a silane of formula (II).

The method disclosed in the present application differs from D1 by the use of a phosphonomethylsilane as starting material instead of phosphonoethylsilane.

3. The subjects of claims 1-10 are also inventive within the meaning of PCT Article 33(3).

The application addresses the problem of providing a further method of preparing phosphonic ester-modified organosiloxanes wherein the phosphonic ester-modified organosiloxanes have phosphonomethylsilyl groups.

A person skilled in the art is familiar with the method, disclosed in D1, example 14, of preparing phosphonic ester-modified organosiloxanes with phosphonoethylsilyl groups by means of hydrolysis of phosphonoethylsilanes in the presence of dimethyl diethoxysilane.

However, a person skilled in the art would not draw on D1 and the method disclosed there for solving the above problem because on page 1 of D1, end of column 1 to column 2, it is indicated that

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

phosphonic acid ester-modified organosiloxanes with phosphonomethylsilyl groups are unstable in the presence of strong alkalis and acids because the methylene bridge is cleaved.

Thus, none of the search report citations suggest the solution found in the present application of providing such phosphonic ester-modified organosiloxanes with phosphonomethylsilyl groups by a method of aqueous hydrolysis of phosphonomethylsilanes of formula (III) either alone or in the presence of silanes of formula (II) as defined in claims 1-9, or the use of the phosphonic ester-modified organosiloxanes as antistatic additive as defined in claim 10.

The subjects of claims 1-10 of the present application are therefore inventive.

4. The subjects of claims 1-10 have industrial applicability within the meaning of PCT Article 33(4).